

Chapter 12

Mineral Extraction	12-1
Action since adoption of the 1997 Comprehensive Plan	12-1
Goals & objectives	12-1
Background	12-2
Surface mining	12-2
Existing planning tools & regulatory controls	12-2
Economic benefits/costs of sand & gravel	12-3
Truck traffic & associated impacts	12-3
Implementation strategies	12-3

Chapter 12

Mineral Extraction

Sand and gravel are Charles County's major mineral resources. There are no known deposits of coal, building stone, precious ores, or base metals. Diatomite (a siliceous material used for filters) was once mined, and some preliminary reconnaissance was conducted for petroleum deposits in the Popes Creek area in the 1980s, but there has been no further development.

Nearly half of the sand and gravel extracted in Charles County is removed from upland deposits. These deposits consist of thin layers of sand and gravel, and can be found across most of the County. Considerable sand and some gravel are also contained in lowland deposits found on terraces that border the Potomac River.

The sand and gravel industry is significant to the County and is likely to continue to be so in the future. On farms where deposits are located, mining can supplement farm income through periods of drought or low crop prices. With diminishing mineral deposits in other counties, the resource in Charles County represents a valued and sought after commodity as a construction material for use within and outside the County.

Action since adoption of the 1997 Comprehensive Plan

The County Commissioners created a Sand and Gravel Task Force in 1998 to evaluate the county's regulatory policies against any significant issues related to sand and gravel surface mining. The Task Force met 17 times and in its August 1999 report made recommendations to the County Commissioners in four areas: regulatory process; transportation; environment; and property rights.

Goals & objectives

Charles County's goal for mineral extraction is:

Support the extraction of mineral resources and related operations including processing while safeguarding the public by providing reduction of the negative impacts resulting from extraction and transportation to the maximum extent practicable.

Specific objectives are:

- 12.1 Require that appropriate post-excavation uses for this land be consistent with the County's land planning process.
- 12.2 Protect existing neighborhoods from the impacts of adjacent extraction operations and the transportation of extracted mineral resources.
- 12.3 Protect the natural environment from all sources of pollution resulting from mineral extraction.
- 12.4 Provide adequate regulation and monitoring to all mineral extraction operations, including those in the PUD (St. Charles).
- 12.5 Recognize and consider property owners' right to extract mineral resources.

Background

Surface mining

Sand and gravel deposits are by far the most important mineral resource in Charles County. The deposits in Charles County began to assume increased importance near the end of the 1970s as urbanization in Anne Arundel and Prince George's Counties made it increasingly difficult for the sand and gravel industries to tap deposits in those areas.

According to the Surface Mining Division of the Maryland Department of the Environment, as of January 2003 there were 33 mining permits in the County issued to 17 separate operators. Between 1998 and 2002 production amounted to over 17 million tons, a 10 percent increase over the 1994 to 1998 period, and an amount representing around 22 percent of statewide production.

Studies by the Maryland Geologic Survey indicate that the potential for sand and gravel extraction is widespread throughout the County. Upland deposits, which lie above the 100-foot elevation are, and will continue to be, the most important source of sand and gravel in Charles County. Lowland deposits consist of river-bottom sediments and several levels of terraces flanking the Potomac, Port Tobacco, and Wicomico Rivers. These terraces represent various elevations of the rivers and were probably controlled by the sea level at the time of their formation. The sediments which make up the terraces were, in part, derived from erosion of the upland deposits.

Existing planning tools & regulatory controls

At the state level, surface mining is regulated under Subtitle 8 Environment Article, Annotated Code of Maryland. This law is administered by the Minerals, Oil and Gas Division of the Maryland Department of the Environment. Any person intending to mine sand and gravel must first obtain a Surface Mining Permit from the Division. Licenses must be renewed on an annual basis. On completion of the mining operation, the site must be reclaimed in a fashion satisfactory to the Division.

At the local level, surface and sub-surface mining including wells for oil, natural gas or petroleum are regulated in Charles County through the Zoning Ordinance. Mining is permitted by special exception in all zoning districts with the exception of the RV, RO, CB and PRD districts. Wet processing can be performed in conjunction with surface mining or can be stand alone, again by special exception. A request for special exception must be filed with the Board of Zoning Appeals. The Board then reviews the request to determine if the proposed use conforms to all requirements of the Zoning Ordinance.

As part of the special exception request, the applicant must submit a site plan of the operation, proposed buffers and screening, and any other pertinent information. In most cases, special exceptions are limited to a period of three to five years (renewable) for the extraction and removal of mineral resources. The St. Charles PUD is regulated under the applicable St. Charles Master Plan for the entire zone and surface mining is not regulated by the Board of Appeals. The Charles County Critical Area Program contains specific goals and objectives regarding mining in the Critical Area. The Critical Area Overlay Zone in the Zoning Ordinance contains requirements over and above those required by the special exception process.

Economic benefits/costs of sand & gravel

It is generally recognized that sand and gravel extraction has an important economic role in Charles County. The 1990 Comprehensive Plan estimated that in 1988 the four larger extraction companies in the County employed 317 workers with an annual payroll of almost \$8.0 million.

As part of the Sand and Gravel Task Force's research in the late 1990s, a Sand and Gravel Mining Industry Impact Analysis was prepared (RESI, 1999). The analysis concluded that the industry is one of the County's leading export industries, representing three percent of the total value of goods and services produced in the County (approximately \$53 million) in 1997. A number of sub-industries derive much business from the sand and gravel industry including the trucking, wholesale trade, and engineering industries.

The economic detriment of mineral extraction on Charles County is not known. There exist no specific data to estimate the cost of roadway repair, law enforcement, lower real estate values, environmental degradation and intangibles such as quality of life that can be directly attributed to the impact of mineral extraction in Charles County.

A Sand and Gravel Task Force at the time of the 1990 Comprehensive Plan addressed the complicated issue of placing a tax upon mineral extractors in Charles County. This tax was intended to benefit County services and not to penalize the extractor. It was assumed the tax or fee would result in slightly higher prices for the mineral to those purchasing mineral resources. While the 1998 Sand and Gravel Task Force did not address the tax issue, it did recommend establishing a mining transportation impact fee.

Truck traffic & associated impacts

Extraction operations generate sizable amounts of truck traffic. Truck traffic problems are a key concern to County residents in regards to this industry. Some communities desire that haul roads within the extraction sites be located in such a fashion that they stay away from adjoining property. This action helps contain noise associated with the operation, but does not address the hauling of mineral resources on County and State roads. Noise and safety on public rights-of-way are also serious concerns associated with truck traffic. Even after federal noise standards of 80 decibels at 50 feet were imposed on new trucks in 1982, truck noise was still responsible for numerous complaints.

Growth in the sand and gravel industries has resulted in more truck travel in or near residential areas, thus creating considerable concern among County citizens. Because of the increase, some assurance is due County residents that these trucks meet minimum safety and noise standards. The 1998 Sand and Gravel Task Force recommended amending the number of truck loads per day established in the zoning regulations that may be hauled from mining sites.

Implementation strategies

1. Work towards adoption of code amendments designed to implement recommendations of the Sand and Gravel Task Force. A complex set of code amendments were considered by the County Commissioners in 2001 (Zoning Text Amendment #00-49), addressing issues including truck loads and traffic, vegetative buffers, protection of groundwater and surface water resources, stream channels, and post mining reclamation. A number of these amendments require legal review for local authority in relation to state regulations.